Lake States
Misc

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RESEARCH

STAND AND STOCK TABLES FOR SELECTED FOREST COVER TYPES IN THE LAKE STATES

The accompanying Stand and Stock Tables were compiled by the Lake States Forest Experiment Station in connection with the Forest Survey of the Lake States. The data on which they are based were collected on 1/5-acre sample plots taken systematically throughout each economic unit.*

These tables indicate the average number of trees per acre by species and diameter classes and the volume per acre of sawtimber pulpwood and total cubic feet, for selected condition classes of several forest cover types. Comparable stands from several localities of the Lake States are included for purposes of comparison. The data have not been curved.

Similar tables have been prepared for each of twelve economic units in the Lake States. Separate tables have been compiled for each of the following condition classes in each of fourteen forest cover types:

0-5 or Reproduction Stands
5-9 or Cordwood Stands
9-15 or Second Growth Sawtimber Stands
15+ or Old Growth Sawtimber Stands

The original tables show not only average number of trees per acre by diameter classes and species, but also the timber volumes similarly distributed. Copies of these tables can be made available for technical use to individuals interested in specific areas.

In preparing these condensed tables species have been variously grouped in the several cover types. Where "miscellaneous conifers" or "miscellaneous hardwoods" appear, the group includes all species not separately listed.

*For a more detailed discussion of the procedure followed, refer to Economic Notes No. 4, "Introduction to Reports of the Forest Survey of the Lake States", issued in May, 1936. Economic Notes No. 4 also contains a key map from which the several districts or economic units may be identified.

Board foot volumes are measured by the Scribner Decimal C rule.

Pulpwood volume includes only pulpwood in small trees and in tops of sawtimber trees. Wood suitable for both sawtimber and pulpwood does not appear as pulpwood volume.

Total cubic volume includes the volume of all trees 5.0 inches and larger D.B.H., to a top diameter inside bark of 4.0 inches.

Land types indicated on some of the tables are as follows:

P - Pine land
SB - Spruce-Balsam land
H - Hardwood land
S - Swamp land
B - Bottomlands

Average Stand Table and Average Volume Per Acre
Reproduction Stands Northern Hardwoods Cover Type
Unit II, Michigan.

Species

D.B.H. Class	Pines	Balsam	Spruce	Tamarack	Hemlock	Sugar Maple	Yellow Birch	Basswood	Elm	Red Oak	White Oak	Misc. Better Hdwds.	Aspen	Paper Birch	Scrub Oak	Misc. Inferior Hdwds.	Beech	Cedar	All Species	Cull Trees
Number of Trees Per Acre																				
2	.26	8.67	.66		1.84	173.32	19.58	13.40	6.31	2.23	.13	3.55	16.69	3.55	.53	66.36	.66	2.10	219.84	1.97
4	.16	2.10	.79		1.10	20.29	6.89	2.10	2.16	.53		1.00	5.15	2.26		11.30	.05	.53	56.41	2.42
6	.07	.89	.26	.01	1.19	4.47	1.20	.55	.58	.24	.01	.22	1.13	.47		2.10	.05	.33	13.77	1.96
8	.03	.41	.13		1.16	2.72	.72	.18	.15	.11		.04	.39	.12	.01	.74	.03	.19	7.13	1.29
10	.01	.19	.11		.68	2.01	.47	.11	.09	.08		.02	.11	.02		.22		.07	4.19	1.05
12	.03	.05	.05		.43	1.45	.34	.12	.07	.09		.01	.04	.01	.01	.19		.08	2.97	.81
14	.01	.01	.01		.19	.66	.22	.03	.04	.05						.08		.01	1.31	.34
16		.01			.08	.37	.14		.01	.03				.01		.05			.70	.27
18			.01			.13	.06	.01	.01									.04	.26	.24
20					.01	.03	.03	.01						.01		.01		.01	.11	1.21
22						.02	.03	.01						.01					.07	.11
24						.01	.03											.01	.05	.06
26						.01	.02												.03	.08
28							.02												.02	.03
30							.01												.01	.03
32						.01													.01	.01
34							.01												.01	.01
36							.01												.01	.01
Tot.	.57	12.33	2.02	.01	6.68	205.50	29.78	16.52	9.42	3.36	.14	4.84	23.51	6.46	.55	81.05	.79	3.37	406.90	11.90

Total Net Volume Per Acre

Total Cu.Ft.		7	4		25	120	47	9	5	5		1	6	4		21		6	260	121
Pulp Cu.Ft.		4	2		8								1						15	
Sawtimber Bd.Ft.	2	8	9		38	216	110	16	10	9		1	3	7		19			448	

Average Stand Table and Average Volume Per Acre
Reproduction Stands, Northern Hardwoods Cover Type
Woodlot District Minnesota

D. B. H. Class	Species													
	Pines	Balsam	Sugar Maple	Basswood	Elm	Red Oak	White Oak	Misc. Better Hdwds.	Aspen	Paper Birch	Scrub Oak	Misc. Inferior Hdwds.	All Species	Cull Trees
	Number of Trees Per Acre													
2			26.12	54.48	21.64	7.46	8.21	14.18	13.43	13.43	15.67	54.48	229.10	1.49
4			5.07	5.97	3.58	4.48	4.18	2.09	4.18	5.37	4.78	22.38	62.08	4.78
6			1.04	2.81	1.26	1.33	1.41	1.48	1.70	.89	2.07	2.07	16.06	2.67
8		.07	.49	.93	.63	.37	.37	.19	.41	.22	1.31	.34	5.33	2.61
10			.34	.37	.15	.22	.11	.11	.41	.15	.60	.11	2.57	2.54
12			.15	.30	.22	.37	.11	.04	.26	.11	.34	.04	1.94	1.04
14	.04		.15	.15	.19	.04	.04	.07		.04			.72	.67
16			.22	.07	.15			.04			.04	.07	.59	.56
18				.07	.07						.07		.21	.26
20					.04								.04	.37
22			.04										.04	.15
24														.07
26														.04
Tot.	.04	.07	33.62	65.15	27.93	14.27	14.43	18.20	20.39	20.21	24.88	79.49	318.68	17.25
	Total Net Volume Per Acre													
Total Cubic Ft.	1		22	28	23	14	9	8	13	8	14	9	149	138
Pulp Cubic Ft.									3				3	
Sawtimber Board Ft.	3		45	39	41	14	5	8	17	8		8	188	

Average Stand Table and Average Volume Per Acre
Cordwood Stands, Northern Hardwoods Cover Type
Unit II, Michigan

D.B.H. Class	Species																	
	Pines	Balsam	Spruce	Hemlock	Sugar Maple	Yellow Birch	Basswood	Elm	Red Oak	White Oak	Misc. Better Hdwds.	Aspen	Paper Birch	Scrub Oak	Misc. Inferior Hdwds.	Beech	Cedar	All species	Cull Trees
	Number of Trees Per Acre																	
2	1.87	22.47	4.12	3.00	130.71	27.34	4.12	2.25	3.75		3.75	7.12	3.37		65.55	.37	5.62	285.41	3.00
4	.30	5.24	3.00	2.70	49.89	14.68	4.19	2.25	3.76		2.85	3.00	1.65		26.22	.30	1.95	121.98	5.69
6	.66	3.35	1.30	3.65	24.19	7.21	3.15	1.48	4.19	.06	.19	3.13	2.42	.07	12.55		1.40	69.00	5.52
8	.32	1.78	.47	3.52	10.04	4.48	1.95	.88	1.93		.21	1.91	1.27	.04	4.90		.79	34.49	3.69
10	.17	.58	.34	1.70	4.01	2.32	.94	.39	.90		.06	.81	.56	.06	1.33		.26	14.43	2.40
12	.13	.28	.15	.75	1.78	1.07	.22	.11	.45		.04	.19	.11	.04	.34		.26	5.92	1.69
14	.06	.07	.06	.24	.77	.36	.06	.02	.17			.04	.07	.02	.11		.06	2.11	.86
16		.02	.08	.09	.39	.15	.02	.04	.11			.02			.07		.06	1.05	.51
18			.04	.06	.13	.11								.02	.02			.38	.39
20			.02	.02	.06	.06			.04									.20	.24
22				.04	.06													.10	.21
24					.02													.02	.04
28																			.09
30						.02												.02	.02
32						.02												.02	
34																			.02
36																			.02
Tot.	3.51	33.79	9.58	15.77	222.05	57.82	14.65	7.42	15.30	.06	7.10	16.22	9.45	.25	111.09	.67	10.40	535.13	24.39
	Total Net Volumes Per Acre																	
Total Cu.Ft.	6	30	16	61	244	109	30	15	43		3	30	22	1	76		16	702	134
Pulp Cu.Ft.		18	7	22								8						55	
Sawtimber Bd.Ft.	13	30	48	90	270	140	26	16	54		3	26	15		32			763	

Average Stand Table and Average Volume Per Acre
Cordwood Stands, Northern Hardwood Cover Type
Woodlot District Minnesota

D.B.H. Class	Species														
	Pines	Sugar Maple	Yellow Birch	Basswood	Elm	Red Oak	White Oak	Misc. Better Hdwds.	Aspen	Paper Birch	Scrub Oak	Misc. Inferior Hdwds.	Cedar	All Species	Cull Trees
	Number of Trees Per Acre														
2		24.58		16.76	18.44	1.12	11.17	5.03	7.26	10.06	3.91	36.88		135.21	3.91
4		11.84		16.98	12.74	10.95	13.63	8.27	5.59	3.58	1.79	20.11		105.48	3.35
6		3.63	.03	11.92	7.03	7.46	4.00	4.36	4.06	3.16	2.56	7.43		55.64	3.26
8		2.15		7.40	3.83	4.55	2.18	2.54	2.63	1.68	1.62	2.85	.03	31.46	3.69
10		.92		4.44	2.26	1.76	.78	1.03	1.26	.95	1.31	1.01		15.72	3.32
12	.03	.47		1.34	.87	.92	.45	.28	.39	.25	1.01	.34		6.35	2.12
14		.14		.47	.45	.28	.11	.14	.06		.25	.03		1.93	1.23
16		.03		.22	.39	.20	.11				.28	.06		1.29	.50
18				.03	.14	.03	.03				.22			.45	.70
20		.03				.06	.03	.03			.08			.23	.22
22						.03	.03							.06	.11
24											.03			.03	.14
26					.03									.03	.11
28															.03
30															.03
36															.03
Tot.	.03	43.79	.03	59.56	46.18	27.36	32.52	21.68	21.25	19.68	13.06	68.71	.03	353.88	22.75
	Total Net Volume Per Acre														
Total Cubic Ft.		41		142	94	93	41	41	45	28	41	47		613	214
Pulp Cubic Ft.									10					10	
Sawtimber Board Ft.	2	41		139	122	86	40	25	36	17		29		537	

Average Stand Table and Average Volume Per Acre
Second Growth Sawtimber Stands, Northern Hardwoods
Cover Type, Unit II, Michigan

Species

D.B.H. Class	Pines	Balsam	Spruce	Tamarack	Hemlock	Sugar Maple	Yellow Birch	Basswood	Elm	Red Oak	Misc. Better Hdwds.	Aspen	Paper Birch	Scrub Oak	Misc. Inferior Hdwds.	Beech	Cedar	All Species	Cull Trees
Number of Trees Per Acre																			
2		38.56	5.02	.63	8.15	88.40	18.81	2.82	.63	.31		2.19	4.39		53.30		7.21	230.42	4.70
4	.25	18.18	2.76		9.40	23.20	8.28	2.51	.88		1.13	1.76	1.25		17.18		7.27	94.05	3.01
6	.19	7.24	1.60		6.33	10.03	3.92	.67	.55	.19	.36	.96	.39		7.20		2.88	42.51	2.82
8	.11	4.15	1.16		4.61	8.76	3.10	.75	.28	.31	.17	.74	.22		3.82		1.99	30.17	2.45
10	.08	2.21	.99		3.81	6.54	3.18	.49	.33	.27	.05	.28	.08		2.90	.02	1.14	22.37	2.66
12	.06	.64	.73		3.15	6.66	3.10	.31	.41	.25	.03	.06	.08		1.72		1.03	18.23	2.21
14	.15	.25	.41		1.49	4.51	2.21	.20	.16	.03	.02	.08	.03		1.32		.56	11.42	1.21
16	.10		.11		.77	2.32	1.22	.08	.08	.11	.02	.02	.02		.42		.27	5.54	1.08
18	.05		.06		.41	1.05	.69		.03	.02		.02		.02	.24		.08	2.67	.67
20	.03		.02		.13	.38	.27		.03	.02			.02		.16		.06	1.12	.58
22					.05	.09	.16		.03	.02		.02			.03			.40	.22
24	.03				.05	.11	.11						.02		.02		.02	.36	.22
26	.02				.05		.08											.15	.08
28					.03		.08											.11	.06
30							.02								.02			.04	.02
32															.02			.02	.02
36																			.02
Tot.	1.07	71.23	12.86	.63	38.43	152.05	45.23	7.83	3.41	1.53	1.78	6.13	6.50	.02	88.35	.02	22.51	459.58	22.03
Total Net Volume Per Acre																			
Total Cu.Ft.	20	77	53		221	601	317	27	28	20	6	18	10	1	186		63	1648	191
Pulp Cu.Ft.		48	16		46							5						115	
Sawtimber Bd.Ft.	79	94	166		569	1386	756	46	69	48	7	27	22		367			3636	

Average Stand Tables and Average Volume Per Acre
Second Growth Sawtimber Stands, Northern Hardwoods
Cover Type
Woodlot District, Minnesota

D.B.H. Class	Pines	Balsam	Sugar Maple	Yellow Birch	Basswood	Elm	Red Oak	White Oak	Misc. Better Hdwds.	Aspen	Paper Birch	Scrub Oak	Misc. Inferior Hdwds.	All Species	Cull Trees
					Species										
					Number of Trees Per Acre										
2			18.48		6.52	7.61	1.08				2.17		33.70	69.56	1.08
4		.43	16.09		10.00	5.22	1.74	1.74	.87		2.61		20.00	58.70	3.91
6			6.84		10.51	4.48	1.22	1.63	2.04	1.30	.49	.24	9.05	37.80	2.93
8		.11	3.49	.05	8.06	3.87	1.67	1.99	.54	.91	.32	.22	3.23	24.46	2.80
10		.11	2.10		5.59	3.12	.91	1.77	.59	.59	.75	.22	1.88	17.63	3.12
12		.16	2.47		4.95	3.23	1.67	.91	.22	.43	.22	.32	1.45	16.03	2.58
14		.11	1.29		3.49	2.31	.70	.75				.16	.53	9.34	1.40
16	.11		.81		1.24	1.51	.59	.11				.11	.38	4.86	.81
18	.05		.05		.86	.32	.16	.22						1.66	.75
20			.11		.16	.32	.11					.05		.75	.38
22					.11		.16	.11				.05	.05	.48	.43
24						.22						.05		.27	.11
26					.05	.05								.10	.27
28						.05								.05	
30															.05
Tot.	.16	.92	51.73	.05	51.54	32.31	10.01	9.23	4.26	3.23	6.56	1.42	70.27	241.69	20.62
					Total Net Volume Per Acre										
Total Cu.Ft.	6	7	180		416	295	118	85	18	25	15	16	110	1291	267
Pulp Cu.Ft.		2								5				7	
Sawtimber Bd. Ft.	20	14	360		864	672	266	146	22	27	13		200	2604	

Average Stand Table and Average Volume Per Acre
Old Growth Sawtimber Stands, Northern Hardwoods Cover Type
Cloquet District, Minnesota

D.B.H. Class	Species										
	Balsam	Spruce	Sugar Maple	Yellow Birch	Basswood	Elm	Paper Birch	Misc. Inferior Hdwds.	Cedar	All Species	Cull Trees
	Number of Trees Per Acre										
2		8.33	50.00				41.67	8.33	25.00	133.33	8.33
4	10.00		20.00							30.00	6.67
6	6.67		10.00						3.33	20.00	3.33
8	5.42		.42	2.08	.83				1.67	10.42	.42
10	1.67		2.08	.42					2.92	7.09	.83
12		.42	1.25	1.67	.42				1.25	5.01	3.33
14			3.33	.42	.83			.42	2.50	7.50	1.67
16			.42	.42			.42			1.26	.42
18			.83	2.50			.42		.83	4.58	3.33
20				1.25			.42		.42	2.09	
22				.42		.42				.84	1.25
24				.83						.83	.42
26				.42						.42	.83
30											.42
Tot.	23.76	8.75	88.33	10.43	2.08	.42	42.93	8.75	37.92	223.37	31.25
	Total Net Volume Per Acre										
Total Cu.Ft.	55	8	178	391	29	23	54	12	151	901	521
Pulp Cu.Ft.	26	3								29	
Sawtimber Bd.Ft.	16	21	419	1190	83	82	206	41		2058	

Average Stand Table and Average Volume Per Acre
Cordwood Stands Spruce Balsam Land Type - Aspen Cover Type
Cloquet District, Minnesota

D.B.H. Class	Species												
	Jack Pine	Norway Pine	White Pine	Balsam	Misc. Conifers	Sugar Maple	Basswood	Elm	Oaks	Aspen	Paper Birch	Misc. Inferior Hdwds	All species	Cull Trees
	Number of Trees Per Acre													
2				126.19	23.81	1.19				28.57	53.57	10.71	244.04	2.38
4	1.43	.48	1.43	56.67	15.71	1.43	.48	.48		72.38	55.24	4.29	210.02	12.86
6	2.28	1.05	1.05	7.71	3.75	.33	.19	.19		45.76	18.22	.76	81.29	52.79
8	1.17	.32	.41	1.87	1.72	.09	.32		.03	28.01	4.47	.38	38.79	4.21
10	.58	.15	.15	.50	.53		.06	.03		9.32	1.02	.06	12.95	2.75
12	.29	.12	.06	.09	.12	.03	.03			2.19	.18		3.05	1.46
14	.06	.03	.03		.06	.06				.35	.03		.62	.53
16										.09			.09	.09
18										.03			.03	.18
20	.03												.03	.03
22														.03
Total	5.84	2.15	3.13	192.97	45.75	3.13	1.08	.70	.03	187.20	132.73	16.20	590.91	77.31
	Total Net Volume Per Acre													
Total Cu.Ft.	25	7	7	29	24	3	3	1		401	78	4	582	191
Pulp Cu.Ft.	10	2		20	11					111			154	
sawtimber Bd.Ft.	41	13	8	7	12	5	2	1		283	26	1	399	

Average Stand Table and Average Volume Per Acre
Old Growth Sawtimber Stands, Northern Hardwoods Cover Type
Woodlot District Minnesota

D.B.H. Class	Sugar Maple	Basswood	Elm	Red Oak	White Oak	Misc. Better Hdwds.	Aspen	Paper Birch	Scrub Oak	Misc. Inferior Hdwds.	All Species	Cull Trees
					Species							
					Number of Trees Per Acre							
2	14.77		1.14		1.14					43.19	60.24	
4	14.09	.45	2.27	.45	.91		.45	.45		15.91	34.98	1.36
6	6.15	3.11	1.89	1.08	1.82	.88	.27	.27	.07	3.92	19.46	.95
8	4.66	2.33	1.14	.45	.74	.17	.34	.06	.51	1.98	12.38	2.10
10	4.60	2.78	1.36	.62	.28	.23	.34		.40	1.02	11.63	2.10
12	3.41	2.61	2.39	.45	.28	.23	.17			.68	10.22	2.67
14	3.47	2.33	1.53	.57	.34	.23			.17	.17	8.81	.85
16	2.67	2.44	1.59	.57	.23			.06	.17	.39	8.12	1.14
18	1.53	1.59	.85	.68	.06		.06		.06	.23	5.06	1.25
20	.85	1.02	.80	.28	.06			.06		.06	3.13	1.08
22	.34	.40	.62	.17	.11					.06	1.70	.23
24	.17	.34	.51						.06		1.08	.28
26	.06	.17	.34	.06	.11						.74	.23
28	.11		.17								.28	.34
30			.17								.17	.23
32			.17								.17	.06
36												.11
38			.06								.06	
Tot.	56.88	19.57	17.00	5.38	6.08	1.74	1.63	.90	1.44	67.61	178.23	14.98
					Total Net Volume Per Acre							
Total Cu.Ft.	521	444	433	115	52	15	14	7	14	79	1694	408
Pulp Cu.Ft.							1				1	
Sawtimber Bd.Ft.	1435	1252	1274	312	119	21	22	22		177	4634	

Average Stand Table and Average Volume Per Acre
Old Growth Sawtimber Stands Northern Hardwoods Cover Type
Unit I, Michigan.

D.B.H. Class	Species: Pines	Balsam	Spruce	Tamarack	Hemlock	Sugar Maple	Yellow Birch	Basswood	Elm	All Oaks	Misc. Better Hdwds.	Aspen	Paper Birch	Misc. Inferior Hdwds.	Beech	Cedar	All Species	Cull Trees
	Number of Trees Per Acre																	
2	.78	20.87	3.90	.31	11.06	50.62	4.36	.78	1.25	.16	.31		.62	41.28	25.86	7.94	170.10	3.12
4	.25	11.46	1.80	.06	3.30	9.03	2.99	.25	.93	.06			.25	10.47	7.54	2.24	50.63	2.49
6	.19	5.12	.89		3.14	4.88	1.67	.17	.39	.02	.19	.05	.19	4.54	5.37	1.63	28.44	2.25
8	.08	2 68	.63		3.29	4.28	1.55	.09	.32		.11	.05	.14	3.09	4.31	1.23	21.85	2.20
10	.13	1.25	.34		2.42	3.71	1.29	.03	.06		.03	.02	.15	1.86	3.71	.89	15.89	1.88
12	.03	.59	.24		2.31	3.80	1.42	.09	.05		.05	.01	.07	1.26	3.33	.64	13.89	2.24
14	.06	.24	.14		2.21	3.41	1.50	.06	.04		.03		.04	1.07	2.74	.37	11.91	1.62
16	.02	.05	.07		1.62	3.72	1.55	.04	.02		.03		.01	.73	1.87	.16	9.89	1.41
18	.02	.02	.02		1.84	2.72	1.21	.02	.06		.01		.03	.38	.94	.09	7.36	1.17
20	.02		.03		1.26	1.99	.92	.05	.05		.01			.14	.57	.06	5.10	.78
22	.01		.01		.78	1.21	.51	.01	.03			.01		.13	.30	.02	3.02	.44
24	.02	.01			.72	.90	.40	.03	.03					.09	.09	.01	2.30	.37
26	.02				.47	.45	.26	.01	.02					.05	.04		1.32	.16
28	.01				.27	.21	.16	.02	.02					.01			.70	.09
30	.01				.15	.12	.12	.01	.02					.01			.44	.02
32					.11	.04	.05	.02	.02				.01		.01		.26	.07
34					.03	.01	.03							.01			.08	.03
36	.01				.02				.02								.05	.02
38	.01				.01												.02	.01
40					.01				.01								.02	.01
42	.01								.01								.02	.01
44																		.01
Tot.	1.68	42.29	8.07	.37	35.02	91.10	19.99	1.68	3.35	.24	.77	.14	1.51	65.12	56.68	15.28	343.29	20.40
	Total Net Volume Per Acre																	
Total Cu.Ft.	24	62	25		674	1006	432	25	41		6	2	10	199	464	49	3019	351
Pulp Cu.Ft.		31	7		83							1					122	
Sawtimber Bd.Ft.	119	108	72		2352	3275	1399	86	153		11	4	26	461	1422		9488	

Average Stand Table and Average Volume Per Acre
Old Growth Sawtimber Stands, Northern Hardwoods Cover Type
in Unit II, Michigan.

D.B.H. Class	Species: Pines	Balsam	Spruce	Hemlock	Sugar Maple	Yellow Birch	Basswood	Elm	Red Oak	Misc. Better Hdwds.	Aspen	Paper Birch	Misc. Inferior Hdwds.	Beech	Cedar	All Species	Cull Trees
Number of Trees Per Acre																	
2	.24	18.76	2.76	12.93	68.39	7.76	1.62	1.05	.08	.16	.16	.08	18.84	.32	6.87	139.93	1.37
4	.10	7.89	1.39	10.25	21.67	4.79	1.26	.49		.03	.13	.39	7.85	.23	3.72	60.19	1.65
6	.04	3.97	.86	7.20	8.92	3.08	.58	.23	.01	.09	.11	.22	3.60	.06	2.23	31.20	1.79
8	.03	2.66	.65	5.74	6.64	2.55	.50	.22	.02	.07	.04	.04	2.30	.07	1.68	23.21	1.58
10	.04	1.29	.49	4.63	5.55	2.27	.38	.14		.03	.05	.02	1.42	.06	1.21	17.58	1.45
12	.01	.44	.29	4.05	5.43	2.22	.28	.11		.02	.01	.02	.96	.05	.80	14.69	1.29
14		.12	.20	3.12	4.82	1.90	.23	.11	.02	.01		.02	.77	.04	.56	11.92	1.02
16	.01	.04	.08	2.69	4.38	1.92	.19	.10	.04	.01	.01	.01	.67	.02	.40	10.57	.85
18	.02	.01	.06	2.18	3.47	1.48	.23	.04	.02				.36	.01	.21	8.09	.84
20	.04		.04	1.95	3.25	1.26	.19	.07	.01	.01	.01		.17	.02	.10	6.12	.60
22	.02			1.54	1.50	.87	.16	.05					.12		.04	4.30	.49
24	.02			1.19	.80	.66	.07	.06					.06		.02	2.88	.40
26	.01			.80	.42	.45	.03	.04					.04		.01	1.80	.22
28	.01			.44	.19	.27	.04	.04					.01			1.00	.13
30	.01			.36	.06	.16	.02	.02					.01			.64	.13
32	.01			.15	.03	.09	.03									.31	.05
34				.11		.05		.01					.01			.18	.04
36				.02												.02	.02
38	.01			.01				.01								.03	.01
40																	.01
42				.01												.01	
Tot.	.62	35.18	6.73	59.37	134.52	31.78	5.81	2.79	.20	.43	.52	.80	37.19	.88	17.85	334.67	13.94
Total Net Volume Per Acre																	
Total Cu.Ft.	17	48	33	1107	1156	611	95	48	5	1	1	2	152	6	71	3353	236
Pulp Cu.Ft.		28	8	76												112	
Sawtimber Bd.Ft.	86	63	102	3963	3491	1851	302	179	13	6	4	3	336	15		10414	

Average Stand Table and Average Volume Per Acre
Old Growth Sawtimber Stand, Northern Hardwoods Cover Type
Unit III, Michigan

Species

D.B.H. Class	Pines	Balsam	Hemlock	Sugar Maple	Yellow Birch	Basswood	Elm	All Oaks	Misc. Better Hdwds.	Aspen	Paper Birch	Misc. Inferior Hdwds.	Beech	Cedar	All Species	Cull Trees
Number of Trees Per Acre																
2			4.60	133.33	5.75	14.94	9.20	1.15	10.34		11.49	18.39	24.14	1.15	234.48	1.15
4			4.60	23.91		5.52	7.36		6.90	.46	2.30	10.58	10.11	1.38	73.12	3.22
6	.06	.17	3.22	10.69	.69	3.97	4.83	.34	2.24	1.95	1.15	3.45	5.06	.23	38.05	2.76
8	.23		1.84	5.00	.57	2.82	2.47	.17	1.15	.80	.11	1.78	3.74	.06	20.74	2.53
10		.06	1.32	3.33	.23	1.09	1.44	.06	.69	.69	.06	1.21	3.39		13.57	2.01
12			1.03	2.24	.06	.92	1.26	.12	.40	.11		1.14	3.16		10.44	1.55
14			1.72	2.71	.11	.57	.86	.06	.11	.06		.29	2.07	.06	8.62	1.09
16	.06	.06	1.15	2.82		.46	.69	.06	.11	.11		.40	2.13		8.05	.63
18	.06		1.15	1.61	.11	.46	.46	.23				.23	.92		5.23	.63
20			.52	1.78	.11	.17	.34	.06			.06		.41		3.45	.57
22			.34	.92	.06	.11	.11		.11				.11		1.76	.17
24			.23	.75	.06	.06	.06						.06		1.22	.23
26			.11	.75	.06	.06	.06						.06		1.10	.23
28			.11	.17	.06										.34	
30			.11	.52	.06								.06		.75	.17
32				.17											.17	.06
34			.11	.06											.17	
40				.06											.06	
44																.06
Tot.	.41	.29	22.16	190.82	7.93	31.15	29.14	2.25	22.05	4.18	15.17	37.47	55.42	2.88	421.32	17.06
Total Net Volume Per Acre																
Total Cu.Ft.	7	4	364	1006	60	156	190	22	40	31	9	95	436	2	2422	259
Pulp Cu.Ft.		1	47							9					57	
Sawtimber Bd.Ft.	23	10	1314	3427	193	426	512	51	75	58	16	179	1304		7588	

Average Stand Table and Average Volume Per Acre
Old Growth Sawtimber Stands Northern Hardwoods Cover Type
in Unit IV Michigan

D.B.H. Class	Pines	Hemlock	Sugar Maple	Yellow Birch	Baswood	Elm	Red Oak	White Oak	Misc. Better Hdwds.	Aspen	Paper Birch	Scrub Oak	Misc. Inferior Hdwds.	Beech	All Species	Cull Trees
						Species										
						Number of Trees Per Acre										
2			18.40		.61	3.07		1.23	9.82	1.84			16.57	7.36	58.90	.61
4		.49	3.92		2.21	3.19		.25	4.17	.25			4.91	2.45	21.84	1.23
6			3.34	.18	1.26	2.70	.55	.49	2.33	.18	.03		3.92	1.53	16.51	.83
8	.03		3.50	.03	1.50	2.36	.77	.58	1.56	.09			3.04	1.38	14.84	.43
10			2.12		1.10	1.78	.61	.40	1.01	.18	.03		1.96	1.44	10.63	.40
12	.03		1.99	.03	1.10	1.60	.89	.18	1.13	.28			1.87	1.20	10.30	.46
14			1.66		.83	1.38	.83	.34	.89	.03		.06	1.16	1.10	8.28	.61
16			1.81		.95	1.23	.58	.43	.83	.09			1.29	.86	8.07	.34
18			1.10	.03	.34	1.04	.55	.34	.43	.03			.73	.55	5.14	.37
20			.92		.40	.77	.34	.12	.28	.12		.03	.70	.34	4.02	.43
22			.58		.25	.46	.18	.06	.15				.18	.15	2.01	.18
24			.28		.12	.55	.21	.06	.03	.06			.18	.09	1.58	.12
26			.06		.06	.28	.06	.06		.03			.06	.09	.70	.12
28			.15		.06	.09	.09						.03		.42	.06
30			.12		.03	.03	.06	.03					.03		.30	
32			.03					.06					.03		.12	
34									.03					.03	.06	.03
36										.03			.03		.06	
Tot.	.06	.49	39.98	.27	10.82	20.53	5.72	4.63	22.66	3.21	.06	.09	36.69	18.57	163.78	6.22
						Total Volume Per Acre										
Total Cu.Ft.	1		448	3	199	365	185	88	161	41		2	287	184	1964	111
Pulp Cu.Ft.										1					1	
Sawtimber Bd.Ft.	2		1364	6	647	1110	635	290	445	138			821	452	5910	

Average Stand Table and Average Volume Per Acre
Old Growth Sawtimber Stands, Hemlock Cover Type
Unit II, Michigan

D.B.H. Class	Species																
	Pines	Balsam	Spruce	Hemlock	Sugar Maple	Yellow Birch	Basswood	Elm	Red Oak	Misc. Better Hdwds.	Aspen	Paper Birch	Misc. Inferior Hdwds.	Beech	Cedar	All Species	Cull Trees
	Number of Trees Per Acre																
2		26.54	2.27	25.89	32.36	4.85	.32	.32				.32	15.21		11.00	119.08	.97
4	.13	8.28	2.20	15.92	9.06	5.18	1.17				.39		5.70		7.25	55.28	1.29
6	.02	4.11	.97	12.27	4.64	4.16	.31	.10		.10	.03	.05	3.72	.03	4.09	34.60	1.88
8	.02	2.83	.77	10.32	2.56	3.01	.29	.06	.02	.03		.02	2.61		3.38	25.92	1.55
10	.03	1.49	.60	9.48	2.18	2.78	.16	.05	.02	.03		.03	1.96		2.15	20.96	1.41
12	.02	.40	.23	9.24	2.38	2.59	.10	.05		.02		.02	1.28		1.57	17.90	1.28
14		.08	.18	7.75	1.44	2.38	.15	.02	.05				1.00	.02	1.04	14.11	1.07
16		.05	.10	7.18	1.42	1.94	.10		.06				1.05		.63	12.53	.68
18	.03	.03	.08	5.86	.95	1.38	.02		.02				.43		.39	9.19	1.02
20	.03		.05	5.60	.73	1.26	.05			.03			.21		.06	8.02	.63
22				4.51	.52	.73	.03	.02					.10		.06	5.97	.40
24				3.54	.26	.32	.05	.02					.03		.02	4.24	.34
26				2.43	.08	.34	.05						.02		.02	2.94	.18
28	.02			1.12	.06	.15										1.35	.18
30	.02			1.15		.15										1.32	.13
32	.02			.37		.06										.45	.08
34				.29		.05										.34	.06
36				.05												.05	.03
38	.02			.05												.07	
40	.02															.02	.03
42	.02			.03												.05	.02
46	.02															.02	
Tot.	.42	43.81	7.45	123.05	58.64	31.33	2.80	.64	.17	.21	.42	.44	33.32	.05	31.66	334.41	13.23
	Total Net Volume Per Acre																
Total Cu.Ft.	41	51	35	3027	378	565	34	6	5	3		1	181	1	123	4451	245
Pulp Cu.Ft.		31	11	170												212	
Sawtimber Bd.Ft.	212	68	111	11102	1090	1629	105	20	17	9		1	386	2		14752	

Average Stand Table and Average Volume Per Acre
Cordwood Stands, White Pine Cover Type
Rainy River District, Minnesota

D.B.H. Class	Species										
	Jack Pine	Norway Pine	White Pine	Balsam	Misc. Conifers	Misc. Better Hdwds.	Aspen	Paper Birch	Misc. Inferior Hdwds.	All Species	Cull Trees
	Number of Trees Per Acre										
2		38.46	138.46	30.77	38.46		15.38	61.54	15.38	338.45	
4		15.38	107.69	15.38	12.31		18.46	76.92	3.08	249.22	
6	1.15	18.85	62.69	8.46	8.46		16.15	13.46	.38	129.60	8.46
8	1.54	6.15	21.15	2.31	3.85	.38	8.46	5.77		49.61	1.92
10	.38	.77	3.08	.38	.38		2.31	.38		7.68	3.46
12		2.31	2.31	.38			.77			5.77	
14			.38				.38			.76	
16		.38								.38	
Tot.	3.07	82.30	335.76	57.68	63.46	.38	61.91	158.07	18.84	781.47	13.84
	Total Net Volume Per Acre										
Total Cu.Ft.	15	131	346	39	42	2	144	79	1	799	57
Pulp Cu.Ft.	9	31	7	15	29		41			132	
Sawtimber Bd.Ft.	8	213	169	23	9		101	5		528	

Average Stand Table and Average Volume Per Acre
Old Growth Sawtimber Stands, White Pine Cover Type
Rainy River Dist. Minnesota

D.B.H. Class	Species										
	Norway Pine	White Pine	Balsam	Misc. Conifers	Misc. Better Hdwds.	Oaks	Aspen	Paper Birch	Misc. Inferior Hdwds.	All - Species	Cull Trees
	Number of Trees Per Acre										
2	2.04	8.16	22.45	12.24			12.24	16.33	4.08	77.54	2.04
4	4.08	1.63	60.41	4.90	.82		4.08	8.16	1.63	85.71	2.45
6	.80	1.00	37.20	10.70	.80	.10	4.30	4.00	1.20	60.10	3.10
8		.70	20.90	11.80	.50		3.40	5.10	.30	42.70	1.40
10	.10	.50	5.90	9.80	.50		2.50	4.50		23.80	1.80
12	.20	1.50	2.20	6.70	.30		1.70	4.70		17.30	1.60
14	.10	2.60	.40	3.30	.10		1.00	.40		7.90	.80
16	.20	3.30		2.20			.30	.40		6.40	1.00
18	.40	2.80		1.10			.40	.10		4.80	.20
20	.30	3.60		.10			.30			4.30	.10
22	.40	3.20		.20			.20			4.00	.20
24	.30	2.80								3.10	.10
26		1.50								1.50	.30
28	.20	1.10								1.30	.10
30		.70								.70	
32		.40								.40	
34		.10								.10	
38		.20								.20	
42		.10								.10	
Tot.	9.12	35.89	149.46	63.04	3.02	.10	30.42	43.69	7.21	341.95	15.19
	Total Net Volume Per Acre										
Total Cu.Ft.	154	1936	320	494	17		175	225	5	3326	181
Pulp Cu.Ft.		17	167	49			19			252	
Sawtimber Bd.Ft.	863	8902	286	656	23		392	447		11569	

Average Stand Table and Average Volume Per Acre
Reproduction Stands Spruce Cover Type
Rainy River District Minnesota

D.B.H. Class	Species											
	Jack Pine	White Pine	Balsam	White Spruce	Black Spruce	Tamarack	Misc. Better Hdwds.	Aspen	Misc. Inferior Hdwds.	Cedar	All Species	Cull Trees
	Number of Trees Per Acre											
2			2.04		349.39	42.45		1.63	5.71	23.27	424.49	
4	.16		.33	.82	209.80	10.78		.16	1.14	8.98	232.17	2.45
6	.10	.02	.20	.37	17.65	2.06	.02	.10	.35	1.37	22.24	1.04
8	.02		.08		.98	1.10		.06	.04	.24	2.52	.33
10	.02				.16	.12	.02			.10	.42	.20
12	.04				.02	.04					.10	.02
Tot.	.34	.02	2.65	1.19	578.00	56.55	.04	1.95	7.24	33.96	681.94	4.04
	Total Net Volume Per Acre											
Total Cu.Ft.	1			1	46	13			1	5	67	6
Pulp Cu.Ft.					27	8					35	
Sawtimber Bd.Ft.	1				8	7					16	

Average Stand Table and Average Volume Per Acre
Reproduction Stands, Spruce Cover Type
Unit II, Michigan

D.B.H. Class	Species													
	Jack Pine	Norway Pine	White Pine	Balsam	White Spruce	Black Spruce	Tamarack	Hemlock	Misc. Better Hdwds.	Aspen	Misc. Inferior Hdwds.	Cedar	All Species	Cull Trees
	Number of Trees Per Acre													
2		.60	1.80	21.56	7.78	186.83	61.08		2.40	7.78	2.99	19.16	311.98	2.40
4			.48	6.71	2.87	91.50	10.54	.24	.96	2.87	3.12	8.62	127.91	1.44
6	.03	.03	.15	1.83	.12	11.98	.54	.15	.21	.96	1.11	2.60	19.71	1.05
8			.12	.33	.03	1.44	.15		.18	.33	.57	.72	3.87	.66
10			.06			.21	.06		.09		.21	.30	.93	.60
12			.03				.09		.09		.09		.30	.27
14			.03						.06		.03	.03	.15	.09
16														.03
18			.06										.06	
20									.03				.03	
Tot.	.03	.63	2.73	30.43	10.80	291.96	72.46	.39	4.02	11.94	8.12	31.43	464.94	6.54
	Total Net Volume Per Acre													
Total Cu.Ft.			5	6		35	5		6	4	11	12	84	17
Pulp Cu.Ft.				6		34				1			41	
Sawtimber Bd. Ft.			17			6	7		12		8		50	

Average Stand Table and Average Volume Per Acre
Cordwood Stands Spruce Cover Type
Rainy River District, Minnesota

D.B.H. Class	Jack Pine	White Pine	Balsam	White Spruce	Black Spruce	Tamarack	Misc. Better Hdwds.	Aspen	Misc. Inferior Hdwds.	Cedar	All Species	Cull Trees
					Species							
					Number of Trees Per Acre							
2		.31	16.77	.31	179.50	27.02		1.55	5.28	75.16	305.90	
4	.75	.12	9.32	.99	184.47	8.45		1.74	3.72	32.67	242.23	3.85
6	.45	.02	3.80	.45	123.07	6.09	.02	.62	1.72	13.17	149.41	4.10
8	.09	.02	1.12	.16	37.41	4.46		.51	.95	4.10	48.82	2.08
10	.03		.31	.08	6.09	1.09		.14	.24	.79	8.77	.95
12			.02	.03	.99	.30		.05	.03	.26	1.68	.39
14					.09	.06		.05		.09	.29	.16
16		.02			.02			.02		.03	.09	.08
Tot.	1.32	.49	31.34	2.02	531.64	47.47	.02	4.68	11.94	126.27	757.19	11.61
					Total Net Volume Per Acre							
Total Cu.Ft.	1	1	16	4	573	57		10	14	54	730	38
Pulp Cu.Ft.			7	1	361	34		2			405	
Sawtimber Bd.Ft.	1	3	7	4	293	60		10	5		383	

Average Stand Table and Average Volume Per Acre
Cordwood Stands, Spruce Cover Type
Unit II, Michigan

D.B.H. Class	Jack Pine	Norway Pine	White Pine	Balsam	White Spruce	Black Spruce	Tamarack	Hemlock	Misc. Better Hdwds.	Aspen	Misc. Inferior Hdwds.	Cedar	All Species	Cull Trees
					Species									
					Number of Trees Per Acre									
2		1.12	1.12	55.06	1.12	71.91	21.35	1.12	3.37	1.12	5.61	43.82	206.72	5.62
4			.45	22.47	.45	73.26	7.64	.90	2.25	2.25	10.34	24.72	144.73	1.35
6	.06	.17	.84	18.88	1.24	79.10	1.57	.28	.56	2.13	4.44	9.61	118.88	2.92
8	.11	.06	.73	6.80	.45	37.08	.62	.51	.62	.96	2.02	4.21	54.17	1.46
10			.22	2.02	.62	9.83	.06	.22	.06	.39	.62	1.74	15.78	1.24
12			.28	.34	.11	2.42	.17		.11	.11	.28	1.01	4.83	.67
14			.28		.06	.28			.06	.06		.39	1.13	.34
16			.11			.06	.06		.06			.22	.51	.11
18									.06			.17	.23	
20			.06										.06	
26			.06										.06	
Tot.	.17	1.35	4.15	105.57	4.05	273.94	31.47	3.03	7.15	7.02	23.31	85.89	547.10	13.71
					Total Net Volume Per Acre									
Total Cu.Ft.			31	99	14	507	13	4	12	16	31	87	814	40
Pulp Cu.Ft.				80		404	7	2		4			497	
Sawtimber Bd. Ft.			103	53	21	439	25	2	22	15	16		696	

Average Stand Table and Average Volume Per Acre
Reproduction Stands, Jack Pine Cover Type
Central Pine District Minnesota

D.B.H. Class	Species									
	Jack Pine	Norway Pine	White Pine	Misc. Conifers	Misc. Better Hdwds.	Oaks	Aspen	Paper Birch	All Species	Cull Trees
	Number of Trees Per Acre									
2	273.68	3.16			1.05	5.61	4.56	6.32	294.38	1.05
4	134.18	.84				2.24	2.25	.98	140.49	.28
6	14.38	.74	.02			.09	.13	.09	15.45	.22
8	3.60	.26	.02	.02		.02	.05	.02	3.99	.23
10	1.04	.23						.02	1.29	.12
12	.33	.12						.02	.47	.11
14	.12	.04							.16	.04
16		.02							.02	
18	.02	.02							.04	
22										.02
Tot.	427.35	5.43	.04	.02	1.05	7.96	6.99	7.45	456.29	2.07
	Total Net Volume Per Acre									
Total Cu. Ft.	64	9							73	6
Pulp Cu. Ft.	22	1							23	
Sawtimber Bd. Ft.	44	21						1	66	

Average Stand Table and Average Volume Per Acre
Reproduction Stands, Jack Pine Cover Type
Unit III, Michigan

D.B.H. Class	Species									
	Jack Pine	Norway Pine	White Pine	Misc. Conifers	Hemlock	Oaks	Aspen	Misc. Inferior Hdwds.	All Species	Cull Trees
	Number of Trees Per Acre									
2	159.83	.21	.21	.21		41.67	7.48	3.21	212.82	1.07
4	58.21	.34		.17	.09	8.29	1.28	.09	68.47	.51
6	10.54	.05	.01			2.69	.06	.01	13.36	.67
8	3.39	.05	.02	.01		1.62	.04		5.13	.59
10	1.52	.01	.02			.93			2.48	.47
12	.60	.05				.19			.84	.33
14	.07	.04				.09			.20	.05
16	.02	.05				.05			.12	.04
18	.01	.04	.01						.06	
20										.01
Tot.	234.19	.84	.27	.39	.09	55.53	8.86	3.31	303.48	3.74
	Total Net Volume Per Acre									
Total Cu. Ft.	58	6	1			26	1		91	15
Pulp Cu. Ft.	36								36	
Sawtimber Bd. Ft.	48	18	2			14			82	

Average Stand Table and Average Volume Per Acre
Cordwood Stands, Jack Pine Cover Type
Central Pine District Minnesota

D.B.H. Class	Jack Pine	Norway Pine	White Pine	Balsam	Misc. Conifers	Misc. Better Hdwds.	Oaks	Aspen	Paper Birch	Misc. Inferior Hdwds.	All Species	Cull Trees
	Species											
	Number of Trees Per Acre											
2	85.98	20.83		1.14	2.65		9.85	6.82	17.05	2.28	146.60	1.14
4	146.51	5.91	.30	.30	1.97	.45	6.81	6.67	3.03		171.95	3.94
6	99.92	3.67	.13	.08	.58		.74	4.30	1.02	.05	110.49	3.15
8	47.60	1.55	.06				.34	1.88	.19		51.62	1.31
10	12.39	.57	.06				.06	.09	.02		13.19	.44
12	2.27	.23	.02					.06	.02		2.60	.30
14	.36	.08									.44	.04
16	.08	.02	.02								.12	
20			.02								.02	
Tot.	395.11	32.86	.61	1.52	5.20	.45	17.80	19.82	21.33	2.33	497.03	10.32
	Total Net Volume Per Acre											
Total Cu.Ft.	590	24	3		1		2	24	3		647	21
Pulp Cu.Ft.	254	7						9			270	
Sawtimber Bd.Ft.	340	34	9					5	1		389	

Average Stand Table and Average Volume Per Acre
Cordwood Stands, Jack Pine Cover Type
Unit III, Michigan

D.B.H. Class	Species										
	Jack Pine	Norway Pine	White Pine	Balsam	Misc. Conifers	Oaks	Aspen	Paper Birch	Misc. Inferior Hdwds	All Species	Cull Trees
	Number of Trees Per Acre										
2	107.73	1.10	2.76		.55	30.39	14.36	.55	6.08	163.52	1.66
4	61.44	.66	.44	.44	.66	9.28	6.41	.44		79.77	2.87
6	55.36	.28	.25		.58	8.34	1.71	.25	.06	66.83	1.60
8	32.71	.25	.19		.20	2.90	.25	.06		36.56	.72
10	11.30	.28	.11			1.05	.03			12.77	.77
12	1.96	.19				.22				2.37	.33
14	.30	.03								.33	.03
16	.03	.03	.03							.09	
20											.03
Tot.	270.83	2.82	3.78	.44	1.99	52.18	22.76	1.30	6.14	362.24	8.01
	Total Net Volume Per Acre										
Total Cu.Ft.	373	10	4		2	38	7	1		435	19
Pulp Cu.Ft.	261				2		4			267	
Sawtimber Bd. Ft.	225	16	6			7	1			255	

Average Stand Table and Average Volume Per Acre
Second Growth Sawtimber Stands, Jack Pine Cover Type
Central Pine District Minnesota

D.B.H. Class	White Pine	Jack Pine	Norway Pine	Balsam	Misc. Conifers	Misc. Better Hdwds.	Oaks	Aspen	Paper Birch	Misc. Inferior Hdwds.	All Species	Cull Trees
	Species											
	Number of Trees Per Acre											
2		31.17	14.28	11.69	2.60		4.94	7.79	18.18	1.30	91.95	
4	1.56	17.66	8.31	7.79	2.08		7.96	5.19	11.43		61.98	.52
6	.33	22.36	4.47	2.48	.83	.34	1.63	4.06	6.05	.08	42.63	1.33
8	.26	29.35	2.79	2.60	.45	.13	.13	1.43	2.27		39.41	2.01
10		32.21	2.14	.65	.45		.13	1.04	.45		37.07	1.56
12	.06	19.09	2.01	.26	.25			.32	.39		22.38	.58
14	.06	5.97	.91	.06	.13			.13	.06		7.32	.58
16	.13	1.17	.26								1.56	.26
18	.06	.39	.19								.64	.06
20		.19									.19	
22	.06										.06	
26	.06										.06	
Tot.	2.58	159.56	35.36	25.53	6.79	.47	14.79	19.96	38.83	1.38	305.25	6.90
	Total Net Volume Per Acre											
Total Cu.Ft.	26	1198	134	35	20	1	4	38	46		1502	57
Pulp Cu.Ft.	1	411	8	19	3			6			448	
Sawtimber Bd.Ft.	109	3076	397	30	49			44	33		3738	

Average Stand Table and Average Volume Per Acre
Second Growth Sawtimber Stands, Jack Pine Cover Type
Unit III, Michigan.

D.B.H. Class	Species: Jack Pine	Norway Pine	White Pine	Balsam	Oaks	Aspen	All Species	Cull Trees
	Number of Trees Per Acre							
2	15.79	5.26				5.26	26 31	
4	4.21	2.11				27.37	33.69	2.11
6	13.95	1.05	.26	.26	6.58	4.47	26.31	1.84
8	30.79		.26		5.53	2.37	38.95	1.32
10	35.53				2.11	.26	37.90	.26
12	17.37	.79	.26		1.84		20.26	
14	5.26	.53	.26		.26		6.31	
16	.79						.79	
18	.26						.26	
Tot.	123.95	9.74	.78	.26	16.32	39.73	190.78	5.53
	Total Net Volume Per Acre							
Total Cu.Ft.	977	32	14		102	36	1161	11
Pulp Cu.Ft.	437					20	457	
Sawtimber Bd.Ft.	1908	85	41		64	9	2107	

Average Stand Table and Average Volume Per Acre
Reproduction Stands P Land Type - Aspen Cover Type
Central Pine District Minnesota

D.B.H. Class	Jack Pine	Norway Pine	White Pine	Balsam	Misc. Conifers	Sugar Maple	Basswood	Elm	Oaks	Misc. Better Hdwds.	Aspen	Paper Birch	Misc. Inferior Hdwds.	All Species	Cull Trees
					Species										
					Number of Trees Per Acre										
2	1.33			.33		1.00		.33	9.00		183.67	51.00	5.66	252.32	2.33
4	.93	.27			.53		.13	.27	3.07	.13	43.73	5.07	.13	54.26	3.47
6	.61	.42	.15	.01	.08		.02	.04	.25		4.28	.36	.02	6.24	1.16
8	.46	.25	.09	.03	.02		.03	.02	.14		1.09	.07		2.20	1.05
10	.28	.20	.06	.01	.02			01	.04		.26	.02		.90	.65
12	.21	.09	.03						.02		.09	.01		.45	.26
14	.06	.05	.01								.01			.13	.12
16		03												.03	.05
18			.02											.02	
20			.01											.01	
Tot.	3.88	1.31	.37	.38	.65	1.00	.18	.6	12.52	.13	233.13	56.53	5.81	316.56	9.09
					Total Net Volume Per Acre										
Total Cu.Ft.	11	7	3						2		19	2		44	21
Pulp Cu.Ft.	4	2									6			12	
Sawtimber Bd.Ft.	17	18	9		1				1		9	1		56	

Average Stand Table and Average Volume Per Acre
Reproduction Stands
SB Land Type - Aspen Cover Type
Cloquet District, Minnesota

D.B.H. Class	Species														
	Jack Pine.	Norway Pine	White Pine	Balsam	Misc. Conifers	Sugar Maple	Basswood	Elm	Oaks	Aspen	Paper Birch	Misc. Inferior Hdwds.	All Species	Cull Trees
	Number of Trees Per Acre													
2	.39			12.40	8.53	1.94	2.71		.39	185.27	117.05	6.20	334.88	5.81
4	.31	.31	.47	4.81	2.33	.16	.31		.16	63.88	14.42	.78	87.94	4.34
6	1.09	.57	.09	1.24	.45			.04	.02	7.40	1.87	.10	12.87	1.09
8	.11	.10	.04	.25	.10			.01	.01	.74	.27	.02	1.65	.54
10	.04	.04	.0	.08	.05				.01	.25	.02		.49	.40
12	.01	.01		.01	.03					.18	.04		.28	.24
14				.01	.01	.01				.10		.01	.14	.14
16							.01			.01		.01	.03	.04
18														.02
20														.02
Tot.	1.95	1.03	.60	18.80	11.50	2.11	3.03	.05	.59	257.83	133.67	7.12	438.28	12.64
	Total Net Volume Per Acre													
Total Cu.Ft.	3	2		5	3					25	6	1	45	18
Pulp Cu.Ft.	2	1		3	1					6			13	
Sawtimber Bd.Ft.	1	2		2	3	1	1			22	2	1	35	

Average Stand Table and Average Volume Per Acre
Reproduction Stands H Land Type - Aspen Cover Type
Woodlot District Minnesota

D.B.H. Class	White Pine	Sugar Maple	Basswood	Elm	Oaks 1/	Misc. Better Hdwds.	Aspen	Paper Birch	Misc. Inferior Hdwds. 2/	All Species	Cull Trees
					Number of Trees Per Acre						
2		4.62	13.85	1.54	13.84		113.85	24.62	4.62	176.94	6.15
4			3.08		9.85		45.54	4.31	1.24	64.02	8.62
6	.09		.04	.13	3.77	.17	4.76	1.77	.35	11.08	1.56
8			.14	.21	1.18	.07	1.08	.26	.14	3.08	1.56
10	.05		.05	.07	.62		.42	.02		1.23	.61
12				.07	.28		.09			.44	.35
14			.02		.10					.12	.09
16					.07					.07	.02
18											.07
20											.02
Total	.14	4.62	17.18	2.02	29.71	.24	165.74	30.98	6.35	256.98	19.05
					Total Net Volume Per Acre						
Total Cu.Ft.	1		2	3	22	1	20	5	1	55	28
Pulp Cu.Ft.							7			7	
Sawtimber Bd.Ft.	1		2	3	6		10			22	

1/ Oaks - Red oak, white, oak, scrub oak.
2/ Misc. Inferior Hdwds. - Including red maple.

Average Stand Table and Average Volume Per Acre
Cordwood Stands
P Land Type - Aspen Cover Type
Central Pine District, Minnesota

D.B.H. Class	Jack Pine	Norway Pine	White Pine	Balsam	Misc. Conifers	Sugar Maple	Basswood	Elm	Oaks	Aspen	Paper Birch	Misc. Inferior Hdwds.	All Species	Cull Trees
	Species													
	Number of Trees Per Acre													
2		3.13	3.13	3.13	7.81	4.69	7.81		1.56	67.19	20.31	4.69	123.45	1.56
4	.63	4.38	3.75	1.25	.63	.63	1.25	.63	6.26	95.00	28.13	3.13	145.67	8.75
6	2.18	2.51	2.26	1.00	.82	.04	.21		2.01	81.93	11.07	.28	104.31	8.85
8	1.99	1.20	.68	.37	.18		.13		1.36	29.40	1.65	.10	37.06	4.53
10	.76	.65	.13	.05					.31	4.32	.39		6.61	2.59
12	.34	.24	.10		.03			.03	.08	.47	.10		1.39	.63
14	.16	.16	.03							.03			.38	.26
16		.08											.08	.08
18	.03	.03											.06	
20		.05	.03										.08	
24		.03											.03	
28		.03											.03	
Tot.	6.09	12.49	10.11	5.80	9.47	5.36	9.40	.66	11.58	278.34	61.65	8.20	419.15	27.25
	Total Net Volume Per Acre													
Total Cu.Ft.	31	38	12	4	3		1	1	13	442	41	1	587	80
Pulp Cu.Ft.	12	7	2	2	1					148			172	
Sawtimber Bd.Ft.	44	114	15	1	1			1	3	94	10		283	

Average Stand Table and Average Volume Per Acre
Second Growth Sawtimber Stands, Aspen Cover Type
Unit II, Michigan

D.B.H. Class	Species																
	Jack Pine	Norway Pine	White Pine	Balsam	Misc. Conifers	Hemlock	Sugar Maple	Yellow Birch	Basswood	Elm	Oaks	Aspen	Paper Birch	Misc. Inferior Hdwds.	All Species	Cull Trees
	Number of Trees Per Acre															
2				43.48	4.35	4.35	39.13	8.70	4.35	30.43		13.04	17.39	13.04	178.26	
4			3.48	13.91	15.65	3.48	13.91	5.21		3.48		34.78	15.65	6.96	116.51	
6	.22		3.48	6.30	5.21		4.78	.87		.43	.22	27.61	9.13	5.43	63.68	5.43
8		.43	2.17	2.83	2.39	.22	2.61	1.09			.22	30.65	5.22	2.61	50.44	4.13
10		.43	1.96	1.74	1.96	.65		.22			.22	23.48	5.87	.43	36.96	3.26
12		.22	1.96	.65	1.09			.22				9.35	2.39	.43	16.31	1.09
14					.87		.22					2.17	1.52	.22	5.00	.65
16			.22				.43	.43				.65	.87	.22	2.82	.65
18		.22	.22				.22					.87	.22		1.75	.22
Tot.	.22	1.30	13.49	68.91	31.52	8.70	61.30	16.74	4.35	34.34	.66	142.60	58.26	29.34	471.73	15.43
	Total Net Volume Per Acre															
Total Cu. Ft.		20	87	57	88	7	65	32		1	5	814	267	56	1499	112
Pulp Cu. Ft.				36	34	2						276			348	
Sawtimber Bd. Ft.		74	228	67	195	10	110	58			3	1405	450	56	2656	

Average Stand Table and Average Volume Per Acre
Second Growth Sawtimber Stands, Aspen Cover Type
Central Pine District, Minnesota

D.B.H. Class	Species															
	Jack Pine	Norway Pine	White Pine	Balsam	Misc. Conifers	Sugar Maple	Yellow Birch	Basswood	Elm	Oaks	Aspen	Paper Birch	Misc. Inferior Hdwds.	All Species	Cull Trees
	Number of Trees Per Acre														
2				37.93	15.86	12.07		8.62	1.72	3.44	31.03	8.62	34.48	153.77	
4			.69	12.41	21.78	2.76		3.45	.69	6.90	16.55	17.24	5.52	87.99	4.83
6	.22	.04	.73	8.54	1.95	.94	.04	2.25	2.43	2.18	18.93	12.75	2.83	53.83	6.21
8	.20	.14	.55	2.95	1.13	.06	.03	.98	.98	1.08	22.60	5.29	.96	36.95	6.07
10	.20	.06	.23	1.53	.12	.09		.14	.58	.32	24.31	1.85	.29	29.72	6.59
12	.14		.09	.35	.26	.03		.29	.26	.41	17.25	.69	.09	19.86	5.14
14	.17		.12	.17	.12			.12	.06	.23	6.24	.20	.09	7.52	2.72
16	.06	.03	.14	.03	.12			.03	.03	.03	2.28	.17		2.92	1.50
18		.06	.03		.03				.03	.06	.43	.03		.67	.23
20			.06							.03	.09	.03		.21	.26
22			.12								.03			.15	.06
24											.06			.06	
26									.03					.03	
30			.06											.06	
32															.03
Tot.	.99	.33	2.82	63.91	41.37	15.95	.07	15.88	6.81	14.68	139.80	46.87	44.26	393.74	33.64
	Total Net Volume Per Acre														
Total Cu.Ft.	14	6	42	67	30	3		20	28	32	1066	116	18	1442	315
Pulp Cu.Ft.	4		2	30	3						107			146	
Sawtimber Bd.Ft.	41	24	166	65	69	3		29	44	54	2168	114	13	2790	

Misc. Conifers - Spruce, Tamarack and Cedar.
Oaks - Red oak, White Oak, Scrub Oak.
Misc. Inferior Hdwds. - Including Red Maple.

Average Stand Table and Average Volume Per Acre
Second Growth Sawtimber Stands, Aspen Cover Type
Unit III, Michigan

D.B.H. Class	White Pine	Balsam	Misc. Conifers	Hemlock	Sugar Maple	Elm	Aspen	Paper Birch	Misc. Inferior Hdwds.	All Species	Cull Trees
				Species							
				Number of Trees Per Acre							
2		90.91	81.82				9.09	9.09	36.36	227.27	
4		14.55	29.09		3.64		29.09	18.18	7.27	101.82	3.64
6	2.27	10.45	13.17	.45	1.36	.91	24.09	4.09	5.00	61.79	1.82
8	.45	.45	5.90	.45	.91	.91	26.36	3.64		39.07	2.73
10		.91	4.54		.91	.45	28.64	3.18		38.63	2.73
12	.91	.45	.91	.45	.45		15.00	1.82		19.99	1.82
14			.45			.45	2.27			3.17	.91
16							1.82			1.82	.45
18							.45			.45	
Total	3.63	117.72	135.88	1.35	7.27	2.72	136.81	40.00	48.63	494.01	14.10
				Total Net Volumes Per Acre							
Total Cu.Ft.	25	44	117	11	29	25	1217	111	16	1595	99
Pulp Cu.Ft.		25	11	3			243			282	
Sawtimber Bd.Ft.	54	51	14	20	37	40	2763	153		3132	

Average Stand Table and Average Volume Per Acre
Woodland Pasture Cover Type
Woodlot District, Minn.

D.B.H. Class	Pines	Spruce	Tamarack	Sugar Maple	Yellow Birch	Basswood	Elm	Red Oak	White Oak	Misc. Better Hdwds.	Aspen	Paper Birch	Scrub Oak	Misc. Inferior Hdwds.	Cedar	All Species	Cull Trees
	Number of Trees Per Acre																
2									.63				2.53			3.16	1.27
4							.25	.25	3.04	.51	2.03	.51	8.35	3.80		18.74	2.28
6		.02	.10	.11	.02	.10	.32	.51	1.09	.29	.62	.54	2.27	.70	.05	6.74	1.65
8		.01	.06	.12		.20	.57	.15	.62	.19	.24	.13	1.84	.56		4.69	1.68
10	.01		.01	.09		.21	.29	.06	.41	.06	.09		1.26	.20		2.69	1.86
12	.01		.01	.06		.14	.37	.08	.28	.02	.06		.61	.16		1.80	1.45
14				.03		.12	.32	.07	.22	.01	.02		.30	.10		1.19	.93
16	.01			.03		.11	.24	.04	.07				.19	.04		.73	.63
18						.03	.11	.04	.01				.08	.01		.28	.55
20						.01	.06		.01				.03	.01		.12	.31
22							.04		.02		.02		.01			.09	.23
24						.01	.02							.01		.04	.13
26							.03						.01			04	.09
28							.01									.01	.03
30																	.03
32																	.01
36																	.02
Tot.	.03	.03	.18	.44	.02	.93	2.63	1.20	6.40	1.08	3.08	1.18	17.48	5.59	.05	40.32	13.15
	Total Net Volume Per Acre																
Total Cu.Ft.				5		14	42	9	22	3	5	2	30	12		144	179
Pulp Cu.Ft.																	
Sawtimber Bd.Ft.		2		7		32	95	14	30	1	6			25		212	